

### **REMARKS/ARGUMENTS**

This is in response to the Office Action mailed August 29, 2006. Claims 1-57 are pending in the application. Claims 1-57 are herewith cancelled and new claims 58-72 are added. With the entry of this amendment claims 58-72 will be active.

Applicants have amended the claims to clarify the invention. The specification clearly describes a way to maintain avian embryonic stem cells in culture in an economical medium (without growth factors) while avoiding differentiation and senescence by **progressive deprivation** of the growth factors initially contained in the primary culture medium. The specification additionally shows that it is in addition possible to progressively deprive from the culture medium the inactivated feeder lawn of STO cells that usually necessary and also that it is possible to decrease the concentration of fetal calf serum (until the low concentration of 2 %).

The primary culture medium and progressive depletion of components within the primary culture medium is described throughout the Examples but particularly in Example 2, page 22, lines 13-25, page 23, lines 11-12; in Example 6, particularly page 28 lines 27-32; in Example 5, page 27, lines 3-4 and 14-17; in Example 7, page 29, lines 14-29 and 31-34; at page 23, lines 5-8 and at page 21, lines 28-29. Example 9, page 30, lines 25-33 describes the cell lines obtained by the claimed method. No new matter is added with the amendment.

#### **I. Rejection under 35 USC § 102 over Pain**

The Examiner has rejected claims 1-5, 7-13, 15-16, 18-20, 23, 25 and 54-57 over Pain et al., (*Development* 122, 23339-2348.1996) ("Pain").

Applicants respectfully traverse this rejection as it may apply to new claims 58-72. This citation discloses a method wherein avian embryonic stem cells are cultivated in presence of complete medium (supplemented with growth factors as bFGF, IGF-1, SCF, IL-11 and LIF, see page 2340, 1<sup>st</sup> paragraph, 1<sup>st</sup> column).

It is indicated particularly at page 2373, 2<sup>nd</sup> column, last paragraph, that "The mammalian LIF is required for the long term growth of avian embryonic cells and the expression of antigens characteristics of ES cells."

In contrast, the invention of the amended claims relates to a method to establish adherent or nonadherent cell lines capable of proliferating in a basal medium in the absence **total of exogenous growth factors** by deprivation of said growth factors after at least about twenty passages. Because Pain does not disclose or suggest this method, it fails to sustain a rejection under 35 USC § 102. Withdrawal thereof is therefore respectfully requested.

## **II. Rejections under 35 USC § 112**

The Examiner has rejected claims 1-25 and 54-57 under 35 USC 112, first paragraph, for lack of enablement. The Examiner's rejection is based upon the breadth of the claims, namely their failure to recite the ingredients in the primary culture medium. In response, applicants assert that the amended claims render this rejection moot. Withdrawal thereof is therefore respectfully requested.

**CONCLUSION**

In light of the above amendments and comments, Applicants respectfully request that all rejections and objections be withdrawn and that a timely Notice of Allowance should be issued in this application. Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: November 29, 2008

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